



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/757,763 01/08/01 GREEFF

R MI40-321

021567 WM01/0619
WELLS ST JOHN ROBERTS GREGORY AND MATKIN
SUITE 1300
601 W FIRST AVENUE
SPOKANE WA 99201-3828

EXAMINER

NGUYEN, D

ART UNIT

PAPER NUMBER

2682

DATE MAILED:

06/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/757,763

Applicant(s)
Greeff et al

Examiner
Duc Nguyen

Art Unit
2682



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 8, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-88 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-58, 60-62, 64-67, 69-75, 77-81, and 83-87 is/are rejected.
- 7) ☒ Claim(s) 59, 63, 68, 76, 82, and 88 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

This action is in response to applicant's response filed on 1/8/01. Claims 53-88 are now pending in the present application.

Claim Objections

1. Claim 53 is objected to because of the following informalities: "the frequency" in line 6 of the claim should be changed to "a frequency". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **53-58, 60-62, 64-67, 69-75, 77-81, 83-87** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Nysen** (US Patent Number **6,107,910**).

Regarding claims **53-56, 60, 62, 64-65, 70-73, 77-79, 83-85**, **Nysen** discloses an enhanced backscatter RFID tag reader system and multiprotocol RF tag reader system which would include all the claimed limitations (see **Fig. 49** and **col. 8, lines 48-64, col. 40, lines 13-63**), wherein a balanced mixer is used to mix the local signal with the return signal to produce a set of quadrature

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“baseband” output signals. Since the frequency component of the carrier frequency is filtered in these output signals, hence, **with the broadest reasonable interpretation**, the filtering process which produces a null amplitude at the carrier frequency would read on the claimed limitation of “reducing the amplitude of a component of the return (or modulated) signal having the frequency of the local continuous wave signal (namely, the carrier frequency) using the local continuous wave signal” received from the interrogator as claimed. Therefore, the claimed limitations are made obvious by **Nysen**, for providing an apparatus as claimed, in order to demodulate the information from the modulated backscatter signal.

Regarding claims **57-58, 61, 66, 69, 74-75, 80-81, 86-87**, the claims are rejected for the same reason as set forth above, see claim **53**. In addition, **Nysen** further discloses that a plurality of local signals differing in phase are mixed with the received backscatter signal, this would read on the claimed limitation of “adjusting at least one of an amplitude and a phase of the continuous wave signal” and combining (i.e, mixing) as claimed (see **col. 8, lines 55-64, col. 45, lines 15-34**).

Regarding claim **67**, the claim is rejected for the same reason as set forth above, see claim **53**. In addition, since the process of matching the amplitudes is just simply a scaling process which is used widely in signal processing. Therefore, it would have been obvious to one skill in the art to rescale signals before processing. Therefore, it would have been obvious to one of ordinary skill in the art to further modify **Nysen** for providing a method as claimed, to rescale signals before processing.

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Allowable Subject Matter

4. Claims 59, 63, 68, 76, 82, 88 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 59, 63, 68, 76, 82, 88, the cited prior arts fail to disclose or made it obvious a method of communicating within a coherent backscatter system wherein the receiver is configured to reduce the amplitude of a frequency component of the modulated continuous wave signal (or backscatter signal) by adjusting the amplitude and phase of the local continuous wave signal to provide an adjusted continuous wave signal and sum the adjusted continuous wave signal with the modulated continuous wave signal.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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7. Claims 53-88 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-59 of U.S. Patent No. 6,192,222. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both direct to a method for reducing the amplitude of a frequency component of the modulated continuous wave signal (or backscatter signal) by adjusting the amplitude and phase of the local continuous wave signal to provide an adjusted continuous wave signal and sum the adjusted continuous wave signal with the modulated continuous wave signal.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Kaplan et al** (US Patent Number **3,984,835**), Homodyne communication system.

- **Zai et al** (US Patent Number **6,122,329**), Radio frequency identification interrogator signal processing system for reading moving transponders.

- **Belcher et al** (US Patent Number **5,920,287**), Radio location system for precisely tracking objects by RF transceiver tags which randomly and repetitively emit wideband identification signals.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

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or faxed to:

(703) 872-9314 (for formal communications intended for entry)

or:

(703) 308-6296 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or communications from the examiner should
be directed to Duc Nguyen whose telephone number is (703) 306-4531.

Any inquiry of a general nature or relating to the status of this application should be
directed to the Group receptionist whose telephone number is (703) 305-3900.

Duc Nguyen *DN*

June 14, 2001

Nguyen Vo
6/15/01
NGUYEN T. VO
PRIMARY EXAMINER